

## A NEW GENUS AND A NEW SPECIES OF MYRMICINAE (HYMENOPTERA: FORMICIDAE) FROM INDIA

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### ABSTRACT

A new genus of formicidae with a new species viz. *Neoblepharidatta nayana* is described and commented on its distinguishing features from related genera.

**Key words:** Formicidae, New genus, New species, *Neoblepharidatta nayana*.

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### INTRODUCTION

While we were studying the formicid fauna of Malabar (Kerala), we came across a very interesting specimen belonging to the subfamily Myrmicinae which do not fit to the key to genera of Myrmicinae by Bingham (1903), Holldobler and Wilson (1990), Bolton (1994) or any other descriptions of the genera of Myrmicinae listed by Bolton (1995). So it is described here as a genus new to science. The specimen is obtained from one of the hot spot areas of Western Ghats.

### ABBREVIATIONS USED

DZCU : Department of zoology, University of Calicut

F1-F8 : Funicular segments 1-8

T1 : First tergite; TL - Total length; HL - Head length; HW-Head width; CI-Cephalic index; SL-Scape length; SI-Scape index; ED-Eye diameter; PW- Pronotal width; AL-Alitrunk length.

### MATERIALS AND METHODS

The specimen is obtained by an all out search in the forest areas of Iritty. The observations were made using M3Z Wild Stereozoom (Switzerland made) and Leitz-Wetzlar (German made) microscopes. The figures were drawn using the drawing tube of Wild M3Z Stereozoom microscope and enlarged using KB enlarger of model B2M. The specimen is deposited in the collections of Department of Zoology.

## RESULTS AND DISCUSSION

*Neoblepharidatta* gen. nov.

Type species: *Neoblepharidatta nayana* sp. nov. by monotypy.

**De alate female:** Antennae 11 jointed with a distinct 2-segmented club; eyes very small formed of two ommatidia; frontal lobes extended forwards, to form two broad, rounded lamina (Fig. 1, 3); in full face view. cheeks hidden under these lamina; clypeus

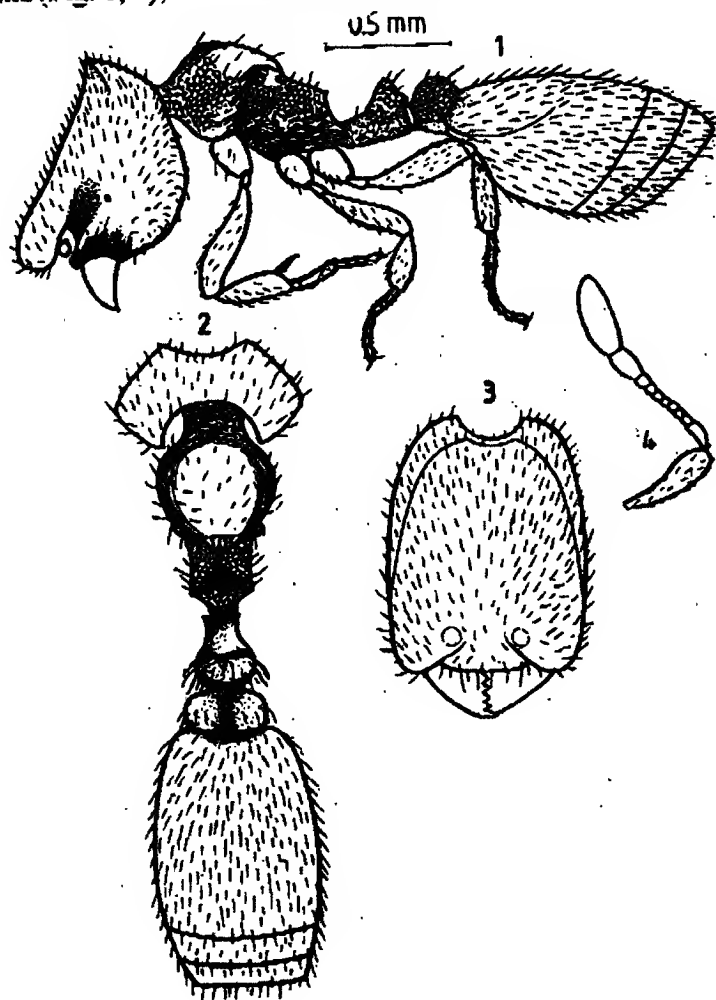


Fig. 1-4 *Neoblepharidatta nayana* sp. nov. 1. Body profile, 2. Body dorsal view, 3. Head front view, 4. Antenna.

very small, depressed, posterodorsal edge of head sharply angulate; posterior margin of head medially deeply emarginate. Mandibles triangular with five teeth; Thorax gibbous; pronotum dome like; no suture between promesonotum; mesometanotal suture distinct; propodeum posteriorly bidentate; medially concave, metasternal teeth bluntly angulate. Petiole pedunculate; posteromedian portion of post petiole slightly depressed. Gaster broad, flat above, convex below.

The genus shows a little resemblance to the Neotropical genus *Blepharidatta* Wheeler (Wheeler 1915). The similarities are (1) Presence of an 11-segmented antenna with a 2-jointed club (2) Clypeus not carinate (3) Propodeum in profile with spiracles well in front of margin of declivity (4) Upper scrobe margins almost parallel in full face view (5) Frontal lobes large, projecting forward (6) Mid and hind tibiae without tibial spurs.

The genus differs from *Blepharidatta* Wheeler in the following characters:

(1) Mandibles with 5 distinct teeth decreasing in size from apex to base (Mandibles with few subequal teeth in *Blepharidatta*) (2) Occipital corners though angulate in profile, not extended backwards (Occipital corners extended backwards as two triangular processes in *Blepharidatta*) (3) Eyes very small consisting of only two ommatidia (Eyes large in *Blepharidatta*) (4) Pronotal angles rounded (Pronotal angles angulate in *Blepharidatta*) (5) Propodeum posteriorly with a pair of short teeth only. (Propodeum with two long spines in *Blepharidatta*).

*Neoblepharidatta nayana* sp. nov. (Figs. 1-4).

**Holotype** : de alate female : TL-2.9 mm; HL-0.80 mm; HW-0.65 mm; CI-81; SL-0.2 mm; SI-31; ED-0.02 mm; PW-0.40 mm; AL-0.74 mm.

**Colour**: Ferrugineous red, antennae and legs of light colour.

**Sculpture and hair pattern**: Whole body covered with dense, short and long hairs; long hairs erect and suberect, short hairs decumbent, most hairs curved at tip; anterior clypeal margin with 6 short median setae. Dorsal concave area of head and mandibles smooth, surrounding areas of head appear smooth in certain reflections, while faintly punctate with setigerous pits; region in between eyes and base of mandibles longitudinally striate; neck of pronotum shagreened; pronotum anteriorly with transversely arched striae, median portion smooth, posteriorly with faint longitudinal striae, sides of thorax finely punctate; propodeum finely punctate; upper region of propleura and a small area on

mesopleura smooth, metasternite above coxae striate and punctate; mesonotum rugoso punctate; post petiole dorsally smooth; gaster smooth.

**Head:** Distinctly longer than broad; posterior margin medially deeply emarginate; sides finely margined; frontal lobes extended forwards; lobes reaching vertex and join with posterior 'U' shaped margin of vertex; antennae arising from beneath anterior lamina of these lobes; in full face view cheeks hidden under frontal lamina; mandibles broad, massive, triangular, masticatory margin with 5 black teeth; clypeus very small, its posterior and lateral margins indistinct, anterior margin transverse with four short setae at its middle, clypeus a little depressed downwards; no distinct scrobe. Antennae very short, 11 jointed, club formed of apical two joints; terminal club segment longest, its length  $0.6 \times$  length of remaining segments of flagellum; F2-F7 transverse; F8 subequal, F1 and club elongate; flagellum length  $2.1 \times$  scape; eyes very small consisting only two ommatidia; in profile, postero-dorsal edge of head finely angulate; ventromedian portion of head swollen and medially carinate, carinae starting from edge of vertex end on either side of this median carina.

**Thorax:** Somewhat gibbous; pronotum with a short neck in front; antero-lateral corners rounded; mesometanotal suture distinct, propodeum posteriorly with two short teeth which project backwards and shorter than their basal width; propodeum medially concave; metathoracic spiracles almost at middle of sternites; metasternal teeth bluntly angulate, legs short, stout; mid and hind tibiae without spurs; hind metatarsus  $0.7 \times$  length of femur.

**Abdomen:** Petiole with a short, stout peduncle in front; node about  $1.3 \times$  length of peduncle; petiole distinctly transverse; sides straight, its length: breadth in dorsal view 3:7; post petiole broader than petiole, transverse, flat above, postero-median part slightly depressed; length: breadth in dorsal view 5:10. Gaster broad, flat above, ventrally convex, T1 covering more than half its length.

**Holotype:** De alate female: India, Kerala, Iritty Forest near Aaralam farm; Sheela. S; 16. xii. 1995 (DZCU).

**Distribution:** India, Kerala.

**Etymology :** Genus named after the genus *Blepharidatta* and species name "*nayana*" is taken from sanskrit word meaning eyes.

**Remarks:** The specimen described here is found to be burrowing under ground. The

efforts to procure more specimens did not materialise.

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